

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number  
**WO 2005/014159 A1**

(51) International Patent Classification<sup>7</sup>: B01J 2/16,  
B01D 46/24

(21) International Application Number:  
PCT/IB2004/002551

(22) International Filing Date: 2 August 2004 (02.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
BO2003A000486 7 August 2003 (07.08.2003) IT

(71) Applicant (for all designated States except US): I.M.A.  
INDUSTRIA MACCHINE AUTOMATICHE S.P.A.  
[IT/IT]; Via Emilia, 428-442, I-40064 Ozzano Emilia (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CONSOLI, Salva-  
tore, Fabrizio [IT/IT]; Via Calindri, 22, I-40127 Bologna

(IT). NORA, Andrea [IT/IT]; Via Nenni, 20, I-41051  
Castelnuovo Rangone (IT). TREBBI, Roberto [IT/IT];  
Via Forno Rosso, 2/3, I-40055 Castenaso (IT).

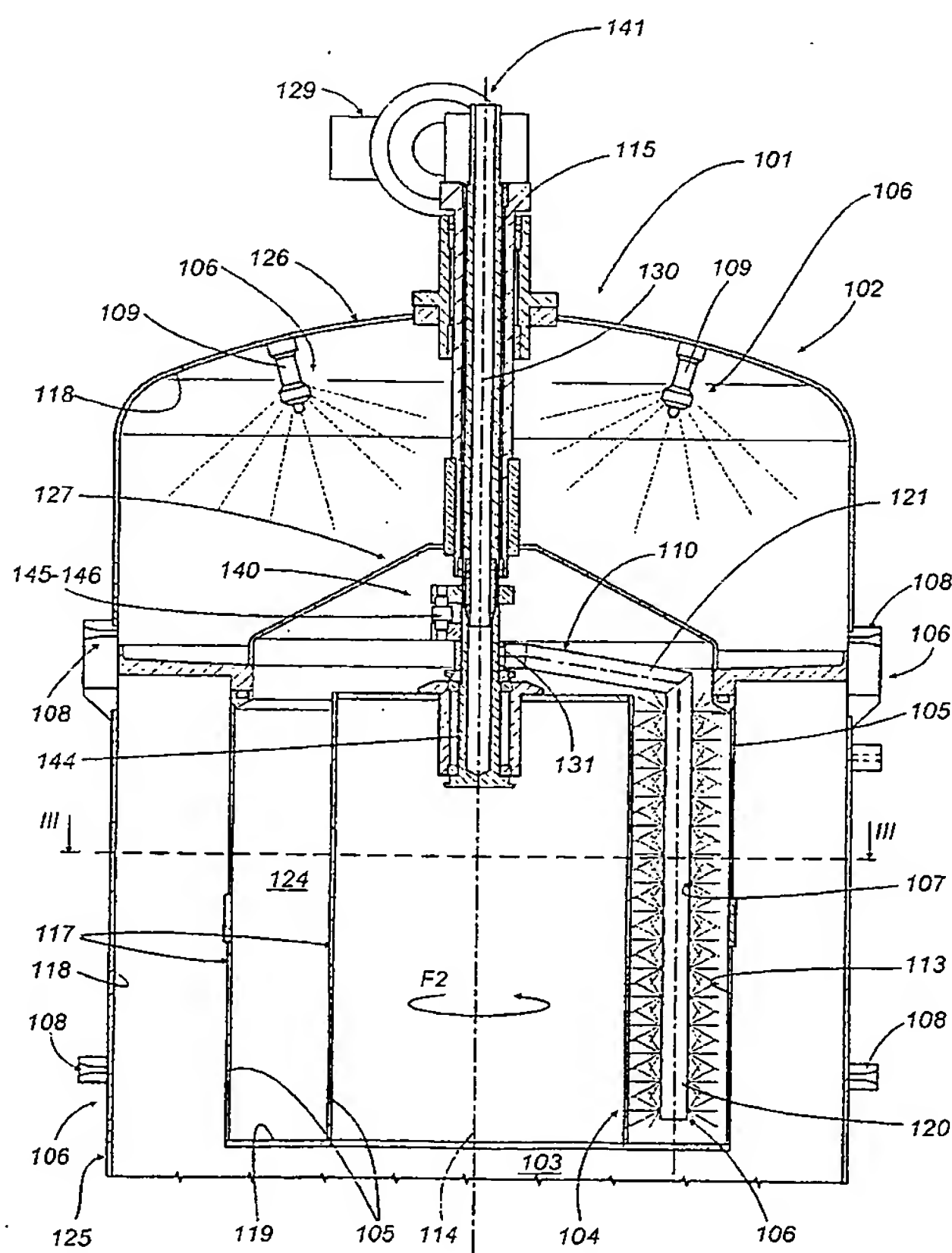
(74) Agent: LANZONI, Luciano; Bugnion S.p.A., Via Goito,  
18, I-40126 Bologna (IT).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: A GRANULATOR DEVICE FOR THE TREATMENT OF POWDERED PRODUCTS



(57) Abstract: A granulator device (101) for the  
treatment of powdered products comprises a closed  
container (102) forming a chamber (103) for treatment  
of the products, filter elements (104, 105) projecting  
into the treatment chamber (103), the filter elements  
comprising a multi-layer filtering wall (105) through  
which a fluid current can pass, and powder removing  
parts (106; 107, 108, 109, 110) designed to diffuse  
at least one service fluid directed towards at least the  
filtering wall (105); the powder removing parts (106;  
107, 108, 109, 110) having at least first diffuser nozzles  
(107) and at least second diffuser nozzles (108) to  
diffuse the service fluid so as to free the filtering wall  
(105) of the powders trapped in it; there also being  
parts (140, 142, 147) for supporting and driving the  
filter elements (104, 105) which can change the angle  
of the filter elements (104, 105) from a first operating  
position, in which at least the first nozzles (107) act on  
the filtering wall (105), to a second operating position  
in which the filter elements (104) are set at an angle to  
the first operating position to allow the second diffuser  
nozzles (108) to operate on the filtering wall (105).



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report

— before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.